



Alfen NG9xx series Release notes

Release notes version 4.8.0
Document version 2.0

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1 Introduction

These release notes accompany the 4.8.0 firmware release for Alfen Charging Equipment based on NG9xx-platform.

Release 4.8.0 introduces new functionalities, general and stability improvements and fixes know issues. The main feature in this release is:

- OCPP 2.0.0 pilot implementation.

In order to optimally benefit from new features and latest stability improvements we strongly recommend installing this latest firmware release. This firmware release is accompanied by a new release of our Service Installer Application. Therefore is recommended to upgrade to the latest version, available on Alfen website: www.alfen.com/downloads and navigate to section 'Applications'.

Disclaimer:

Please note that our OCPP 2.0.0 implementation is based on the original OCPP 2.0.0 specification from the Open Charge Alliance with changes proposed in multiple errata documents. It is not yet conform the OCPP 2.0.1 specification that has been released in April 2020 and will contain differences to the latest version. This pilot release should be used for testing purposes only.

2 New features

2.1 OCPP 2.0.0

***Disclaimer:** This implementation of OCPP 2.0.0 is not fully compliant with the OCPP 2.0.1 specifications that were released in April 2020. Our current implementation is based on the original OCPP 2.0.0 specifications with changes that were proposed in various errata documents. Please investigate the differences with the OCPP 2.0.1 specifications before implementing on a large scale. This pilot release should be used for testing purposes only.*

A few new functionalities of this pilot release which are interesting to try out can be found below.

Device Management

Device Management is a feature which adds value for Charge Point Operators who manage a network of charging stations.

It provides the following functionality:

- Inventory reporting
- Improved error and state reporting
- Improved configuration

One message for all transaction related functionalities

The structure and method for reporting transaction is unified in OCPP 2.0.0 In OCPP 1.x, the reporting of transaction data is split over the messages 'StartTransaction', 'StopTransaction', 'MeterValue' and 'StatusNotification'.

All the 'StartTransaction', 'StopTransaction', and transaction related 'MeterValue' and 'StatusNotification' messages are replaced by 'TransactionEvent'.

'TheStatusNotification' message still exists, but only for non-transaction related status notifications about connector availability.

3 Improvements

- Chargers which are produced with firmware 4.8.0 will have the "MaxTxMeterValueRandomisationTime" value standard set to '0'. If this parameter is set to a value higher than '0', let's say 'A', charging stations which send their meter values to a backend at certain time (i.e. clock aligned) will wait for a period equal to a random amount of seconds between '0' and 'A'. This will spread the amount of incoming messages to a backend helping it with the workload. If the charger sends its meter values per transaction (i.e. transaction aligned) this parameter has no function.
- When a charging session is ended the setting of the station determines if the plug will be unlocked or stays locked until the user unlocks with their NFC card. These two situations did not have a different display state. Now a message will show whether the plug is locked or not.

4 Revision control

Date	Version	Description / status	Author
2020-March-12	1.0	Initial version	Rick Löhlefink
2020-March-24	1.1	Added more minor changes and improvements	Rinze van der Wal
2020-March-24	1.2	Added more minor changes and improvements	Wilbert Li
2020-March-24	1.3	Added new features to the list	Stefan de Beer
2020-March-24	1.4	Added new features to the list	Max Koopmanschap
2020-March-25	1.5	Added new features to the list	Thomas Nederlof
2020-April-1	1.6	Added minor changes	Wilbert Li
2020-April-1	1.7	Removed ticket from list	Jordy Valentijn
2020-April-14	1.8	Added OCPP 2.0.1 texts	Jochem Bakker
2020-May-20	1.9	PM adaptation	Melvin Sieben
2020-June-24	2.0	PM adaption for release	Melvin Sieben

5 Appendix A: List of improvements

The tables below show the changes between hotfix release **4.7.1** and the release **4.8.0**, including references to the Alfen tracking system.

Solved issues:

Issue #	Summary
LA-2992	Improved CertificateSigned certificate chain handling
LA-3115	Ocpp 2.0.0 phase 1
LA-3247	SW support for new Eve Single S-line controlboard
LA-3506	Improvement user experience with plug lock handling
LA-3564	Add support for DER+BASE64 (no begin/end headers) certificates
LA-3656	Show battery icon during cableTimeout after timeUnlockWhenNotCharging has occurred
LA-3700	Show cable time out display message
LA-3719	Other minor improvement
LA-3727	Improved user experience of charging session
LA-3787	Other minor improvement
LA-1814	Other minor improvement
LA-2806	Eichrecht RCD Trip now gives correct error code
LA-3245	Other minor improvement
LA-3533	Other minor improvement
LA-3537	Improvement on fixed cable handling
LA-3539	Improved meter values transmitting to backend
LA-3551	Other minor improvement
LA-3720	Other minor improvement
LA-3877	Other minor improvement
LA-3960	Added support for internal component.
LA-3922	Added support for internal component.
LA-3938	Added support for internal component.

6 Appendix B: Back office Configuration keys changes

Property	Description	Values	Access
Added			
No properties were added			
Modified			
AuthorizationCacheEnabled	Has been removed for OCPP 1.5, use WhiteListEnabled instead.		
CertificateSignedMaxChain	Has all been removed for OCPP 1.5, since these features can only function from OCPP 1.6 onward.		
CertificateStoreMaxLength	Has all been removed for OCPP 1.5, since these features can only function from OCPP 1.6 onward.		
CpoName	Has all been removed for OCPP 1.5, since these features can only function from OCPP 1.6 onward.		
SecurityProfile	Has all been removed for OCPP 1.5, since these features can only function from OCPP 1.6 onward.		
SignedDataEnabled	Has all been removed for OCPP 1.5, since these features can only function from OCPP 1.6 onward.		
MaxTxMeterValueRandomisationTime	Defaults to 0, used to be 60.		
UnlockConnectorOnEVSideDisconnect	Will be True if charging station is configured as "Abort Unlock When Offline", used to be False in that case.		
Removed			
No properties were removed			